## SUMMARY OF HYDROLOGIC CONDITIONS IN BIG CYPRESS BASIN July 2002

### **SUMMARY**

After a soggy June, the summertime rainfall activities were few and far between in July. Surface and groundwater hydrologic conditions were near normal July levels. All of the water control structures were set to wet season operation schedule. However, due to on-going construction for the retrofit of the Golden Gate Canal Weir No. 1, release of water through the Golden Gate Canal system has been moderated, and monitored very closely. No backpumping operations were carried out.

### **RAINFALL**

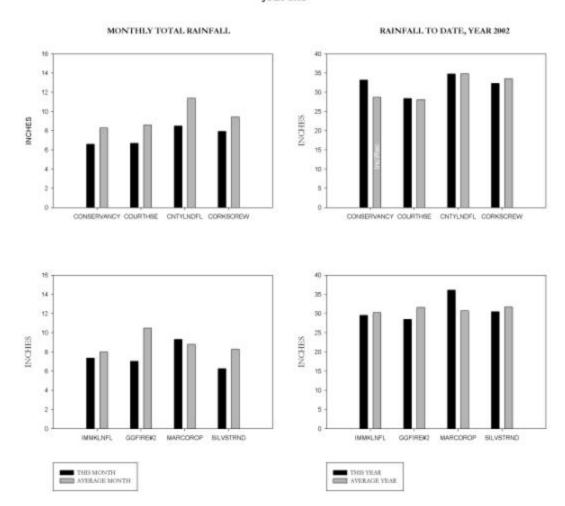
The summertime convective thunderstorms were less frequent in July. There were no tropical systems. Overall, the weighted average rainfall for the Basin was 7.80 inches, or approximately 12 percent below the long-term average for the month. The year-to-date weighted average for the Basin is 31.73 inches, which is about normal for the year. A summary of rainfall recorded at various stations in the Basin is illustrated in Table 1 and Figure 1.

# TABLE 1 RAINFALL REPORT – JULY 2002 DISTRICT/BASIN RAINFALL STATIONS (ALL NUMBERS ARE IN INCHES)

STATION INDEX NO.	STATION NAME	CURRENT MONTH 2002	LONG TERM AVERAGE FOR THIS MONTH	CALENDAR YEAR 2002 CUMULATIVE TOTAL	AVERAGE CALENDAR YEAR TO DATE	LONG TERM YEARLY AVERAGE
R-1	CONSERVANCY	6.59	8.29	33.17 Inc/Rec	28.68	52.72
R-2	COLLIER COUNTY COURTHOUSE	6.69	8.60	28.37	28.09	52.07
R-3	COLLIER COUNTY LANDFILL	8.49	11.39	34.79	34.85	63.08
R-4	CORKSCREW SWAMP SANCTUARY	7.93	9.44	32.34	33.58	57.86
R-5	FAKAHATCHEE STRAND STATE PRESERVE	11.65	9.78	35.83	35.19	63.03
R-6	GOLDEN GATE FIRE STATION #2	7.02	10.48	28.49	31.61	56.66
R-7	IMMOKALEE LANDFILL	7.37	7.99	29.53	30.21	52.38
R-8	IFAS (INST. OF FOOD/AGRI.SCIE.) N. IMMOKALEE	7.83	7.45	29.93	29.64	50.43
R-9	MARCO ISLAND R.O. PLANT	9.30	8.79	36.10	30.71	55.21
R-10	MILES CITY STATE FORESTRY TOWER	10.33	9.65	39.80	36.47	62.03
R-11	COCOHATCHEE STRUCTURE #1	8.03	7.00	25.16	25.80	47.41
R-12	SILVER STRAND GROVE	6.26	8.28	30.44	31.70	56.04
R-13	BCB FIELD STATION	7.79	8.86	34.38	29.21	55.09
R-14	COLLIER/SEMINOLE STATE PARK	6.25	8.33	29.29	28.65	53.83
R-15	BONITA SPRINGS WATER PLANT	5.58	8.40	29.83	30.04	54.23

### MONTHLY AND YEAR-TO-DATE RAINFALL AT SELECTED LOCATIONS

#### JULY 2002



#### FIGURE 1

### SURFACE AND GROUNDWATER LEVELS

Surface water levels in canals and streams responded quickly to abundant rainfall in June and stayed at normal July levels. The water control structures were set to operate on wet season schedule. However, water releases through the Golden Gate Canal system were moderated in order to not interrupt the construction of the retrofit of Golden Gate Canal Weir No. 1. Water levels in the entire system are monitored closely, and the cofferdam will be dismantled if alarming water levels are reached upstream. A summary of surface water stage hydrographs at selected locations is illustrated in Figures 2 and 3.

Records for regional groundwater levels in the surficial water table and Lower Tamiami Aquifers were not available from USGS at the time of the writing of this report.

### MONTHLY MEAN CANAL STAGES AT SELECTED LOCATIONS 2002

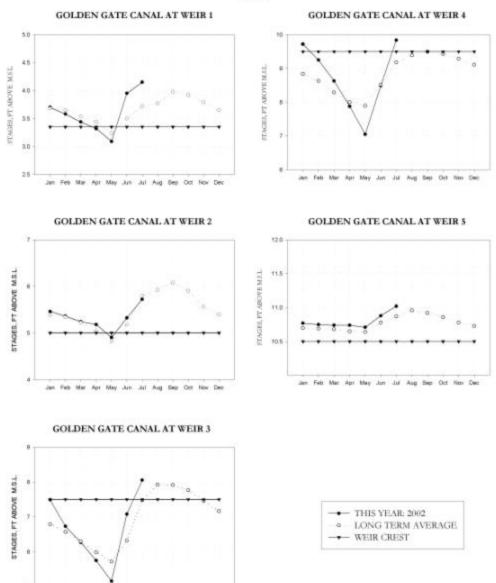


FIGURE 2

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Now Dec

### MONTHLY MEAN CANAL STAGES AT SELECTED LOCATIONS 2002

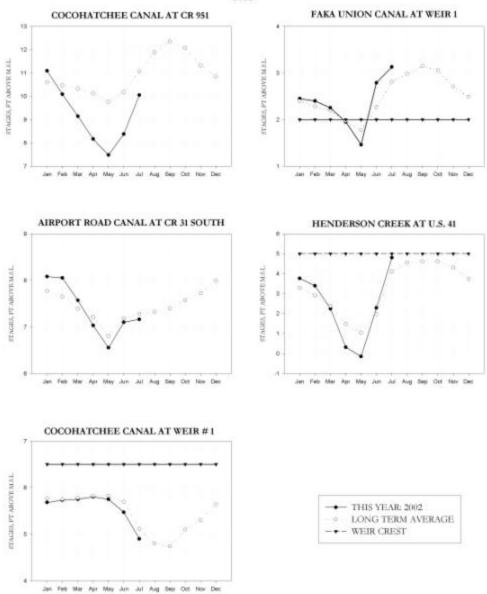


FIGURE 3

### WATER USE

The average daily raw water pumpages by the three major public water utilities in the Basin during July 2002 are as follows, and illustrated in Figure 4.

### Average Daily Raw Water Pumped

### <u>MGD</u>

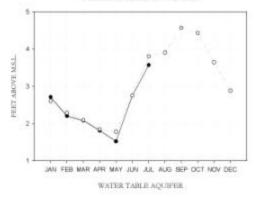
Utility	July 2002	July 2001
1. City of Naples Water Utility	17.30	14.46
2. Collier County Utilities	22.51	18.84
3. Marco Island Water Utility*	3.65	3.58

<sup>\*</sup> Surface water only

### GROUNDWATER LEVELS AT SELECTED LOCATIONS 2002

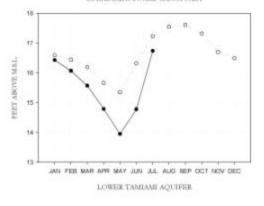
### GROUND WATER LEVELS AT WELL C-1063

NEAR SIX Ls FARM ON US 41 EAST



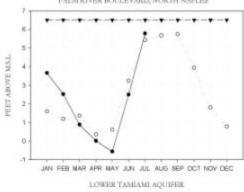
#### GROUND WATER LEVELS AT C-492

CORRSCREW SWAMP SANCTUARY



#### GROUND WATER LEVELS AT WELL C-1004R

PALM RIVER BOULEVARD, NORTH NAPLES



\* C-1004 was destroyed and replaced by C-1004R

2002
 Historical
 WEIR CTRL ELEVA

FIGURE 4

### WATER USE BY MAJOR PUBLIC UTILITIES 2002

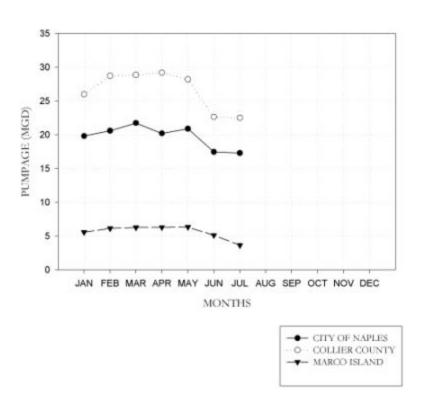


FIGURE 5